

REMARKS

In the above-identified office action, all of the pending claims, claims 1, 5-10, 13, and 16-38 were rejected. Claims 1, 5, 7-10, 13, 16, 18-23, 25-28, 30, 31, 33-35, 37, and 38 were rejected under Section 103 (a) over the combination of Dorenbosch and H'Mimy. The remaining claims, claims 7, 17, 24, 39, 32, and 36 were rejected under Section 103 (a) over the combination of Dorenbosch, H'Mimy, and Boudreaux.

The Examiner acknowledged that Dorenbosch fails to disclose a switching module that reads a list of candidate channels and compares their characteristics against service criteria. And, the Examiner acknowledged that Dorenbosch fails to disclose that the switching module switches the service from the first connection to the second connection.

The Examiner, however, relied upon H'Mimy for disclosing these features, viz., a switching module that reads a list of candidate channels and compares their characteristics against service criteria to select the second channel and wherein the switching module switches the service from the first connection to the second connection.

The rejection of the claims over this combination is respectfully traversed. The applicants believe the rejection of the claims based upon this combination of references fails to set forth a prima facie case of obviousness. Therefore, the rejection of the claims under Section 103 (a) should be withdrawn.

MPEP Section 2142 sets forth three basic criteria that are required to set forth a prima facie conclusion of obviousness. First, there must be a suggestion or motivation, in the art itself or in knowledge generally available to those ordinarily skilled in the art, that leads to the modification or teachings proposed by the Examiner. Second, there must be a reasonable expectation of success. And, third, the combination of references must teach or suggest all of the claim limitations.

With respect to Dorenbosch, the Applicant refers to comments made in an earlier response dated 12 April 2007. The comments set forth therein show that the Dorenbosch fails to show structure and method that is recited in the claims.

H'Mimy also fails to disclose such structure or operation. Review of this reference indicates that a method or algorithm is disclosed for assigning a channel to a service within a wireless communication network based upon interference levels and channel quality measurements. Figure 3 of the reference outlines the process. The method is implemented within a wireless network, such as in a Base Station Controller (BSC) or in a Mobile Switching Center (MSC) for assigning a radio channel to a mobile device. The reference appears particularly to be concerned with the issue of channel crowding. And, the method focuses on insuring a more even distribution of channel allocation across the spectrum used in a particular cell of the BSC.

The uplink interference level is measured of each channel in the network, and the channels are segregated into a set of interference bands, as detailed in steps 110-116 of Figure 3, and as shown in Table 1. At step 118, each call request is pre-assigned to an unblocked channel that has as high an interference level as possible (column 8, lines 38-41). After pre-assignment of a cell request, i.e., a service, to a channel within a high interference band that is believed to be adequate to provide service, channel quality is measured for each of the pre-assigned channels. In particular, in an analog system, a carrier to interference ratio is calculated and, in a digital system, a Bit Error Rate (BER) is calculated. At step 122, channels are segregated or classified into categories of channel quality based upon these CQM measurements, as shown in Table 2.

Step 124 reflects a determination as to whether the measured channel quality of the pre-assigned channel is within the worst channel quality band, Q^1 . If so, there is an attempt to hand-off the call to a current base station or another system.

At step 122, a determination is made as to whether the channel quality of the pre-assigned channel measured is to be in the best channel quality band, Q^{m+1} . If so, the call is permitted to continue on the high quality channel.

At step 136, an assessment is made as to whether the interference level of the pre-assigned channel is within the best interference band. This step is applied to those calls that are operating in a channel having neither the worst nor the best channel quality. If the assessment is affirmative, the call is continued on that channel since the level of interference cannot be

improved. If the pre-assigned channel is not within the best available interference band, then an algorithm implementation is applied, as shown in step 140.

Table 3 of the H'Mimy reference illustrates an example of the algorithm implementation for step 140. Essentially, step 140 is a variable channel reassignment algorithm. The reassignment is made based on the measured channel quality, e.g., C/I or BER, and the interference band designation of the pre-assigned channel. The result of the reassignment is to select a channel variably, but predictable, having a low interference level. The jump-up between interference bands is made somewhat variable to encourage less channel crowding.

The H'Mimy reference teaches a method of channel allocation implemented within the wireless network in which the network performs interference level measurements on uplink bands and categorizes/segregates the channels based on the interference that is measured. The reference then pre-assigns an incoming service to a channel having an interference level that is believed to be "good enough" based on experience and the requirements of the network to allow continued operation of the service. The reference fails to state the service that has a set of the service characteristics or criteria that are evaluated to determine if the interference level of a given channel is sufficient to support that service. Rather, the reference seems to suggest that the network itself will have made an assessment of what, from a radio engineering point of view, is an acceptable level of interference for supporting wireless connectivity with a mobile hand set.

After the pre-assigned channel has been allocated to the service, a measurement of channel quality is made and re-assignment may occur if a channel with lower interference is available in the cell. As is clear from the description of algorithm 140 and from Table 3, there is no assessment of service criteria in the selection of the second re-assigned channel. The re-assignment is made purely on the basis that there is an available channel having a lower degree of interference available. This is not surprising as the reference relates to a network-centered radio channel allocation process. It is focused entirely on physical layer connectivity and would be unaware and unconcerned about the nature of the service operating over the connection and its requirements.

In contrast, the invention of the present application pertains to wireless channel selection initiated and controlled by a mobile device and within a level three awareness of the service

criteria associated with the active service operating over the first connection. Independent claim 1 recites a method of wireless channel selection by a mobile device. The method includes creating a second connection with the wireless network over the second channel, wherein the creating includes selecting the second channel and evaluating characteristics of the second channel against service criteria associated with the service.

The H'Mimy reference does not disclose service criteria associated with the service, contrary to the assertion set forth in the Office Action. Additionally, the reference does not teach a method performed by a mobile device, but rather merely pertains to a channel allocation process implemented within the wireless network itself.

Therefore, Dorenbosch and H'Mimy cannot be combined to disclose the present invention, recited in the independent claims. Neither of the references teaches the selection of a second channel by evaluating channel characteristics against service criteria associated with the service established over a first connection.

The applicants further believe that one of ordinary skill in the art would not be inclined to modify Dorenbosch in view of H'Mimy in a manner asserted by the Examiner. Dorenbosch relates to the soft hand-off between IP connections on a mobile device. H'Mimy relates to a wireless channel allocation process, implemented within a network device, such as a base station controller. This reference details a process focused on channel crowding, an issue that is not addressed from the mobile device side. This is necessarily a network-side channel allocation concern. Accordingly, a person with skill in the art would have no motivation to modify Dorenbosch to incorporate the teachings found in a radio-level network-side channel allocation process.

For these reasons, the applicants respectfully submit that Dorenbosch and H'Mimy, alone or in combination, do not render independent claims 1, 10, 21, and 26 obvious. Reconsideration of the rejection is respectfully made.

Boudreaux also fails to contain any teachings that cure the deficiencies of disclosures of Dorenbosch and H'Mimy. Accordingly, the independent claims are also believed to be distinguishable over the combination of Dorenbosch, H'Mimy, and Boudreaux.

As the remaining dependent claims include all of the limitations of their respective parent claims, these claims are believed to be patentably distinguishable over the cited combinations of references for the same reasons for those given with respect to their respective parent claims.

Accordingly, reexamination and reconsideration for allowance of the claims is respectfully requested. Such early action is earnestly solicited.

Respectfully submitted,

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